

REMARKS

SECTION 102 REJECTIONS

Claims 1-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Walser et al. (US Pat. # 6,731 ,998).

The office action stated the following reasons for the claim rejections:

Regarding claim 1, Walser et al. disclose an optimization automated manufacturing system, comprising a) a computer processing system that defines product packages (see fig. 1, elements 14 and 16) and one or more product subbatches within each product package in response to input product information (see fig.2, element 20, cols. 5-6); and b) a plurality of consolidation systems that receive the product subbatches in accordance to consolidation assignment and consolidate the product subbatches into product packages (see fig. 2, element 30, cols. 5-6), wherein the computer processing system receives the status information of the consolidation systems and produces consolidation assignment.

Regarding claim 2, Walser et al. further disclose C) a distribution system that receives the product subbatches and distributes the product subbatches to the consolidation systems in accordance to the Consolidation assignment produced by the computer processing system (see fig. 2, element 24 and 34).

Regarding claim 3, Walser et al. further disclose c) an output system that receives the product packages from the consolidation systems and ships the product packages (see fig. 3, element 140, col., 7, lines 1-15).

Regarding claim 4, Walser et al. disclose wherein the product subbatches carries machine-readable or human readable information comprising consolidation assignment information (see fig. 1, col. 3 lines 63-col. 4, line30).

Regarding claim 5, this claim is rejected for the same reasons applied above rejected claim 4.

Regarding claims 6 and 7, Walser et al. disclose wherein the status information of the consolidation systems includes the load levels of the consolidation systems (see cols. 7-8).

Regarding claim 8-10, Walser et al. disclose wherein the status information of the consolidation systems includes the properties of the product

subbatches stored in the consolidation systems (see cols. 7-8).

Regarding claim 11, Walser et al. disclose an optimization automated manufacturing system, comprising a computer processing system that defines product packages and one or more product subbatches within each product package in response to input product information (see fig. 1, elements 14 and 16); b) one or more production systems that produce the product subbatches (see fig. 2, element 20, cols. 5-6); and c) a plurality of consolidation systems that receive the product subbatches in accordance to consolidation assignment and consolidate the product subbatches into product packages (see fig. 2, element 30, cols. 5-6), wherein the computer processing system receives the status information of the consolidation systems and produces consolidation assignment.

Regarding claims 12 and 25, Walser et al. disclose wherein the computer processing system produces digital data in response to input product information, wherein the digital data was received by the production systems for producing the product subbatches (see fig. 1, col. 4, lines 1-14).

Regarding claim 13, Walser et al. disclose wherein the computer processing system assigns the product subbatches to be produced at one of the production systems (see col. 4, lines 1-30).

Regarding claim 14, Walser et al. disclose wherein the computer processing system schedules the product subbatches to be produced at one of the production systems in accordance to the status information of the consolidation systems (see col. 4).

Regarding claim 15, Walser et al. further disclose d) a distribution system that receives the product subbatches from the one or more production systems and distributes the product subbatches to the consolidation systems in accordance to the consolidation assignment information (see fig. 2, element 24 and 34).

Regarding claims 16 and 17, this claim is rejected for the same reasons applied above rejected claim 4.

Regarding claims 18 and 19, this claim is rejected for the same reasons applied above rejected claims 6 and 7.

Regarding claim 20-22, this claim is rejected for the same reasons applied above rejected claims 8 and 10.

Regarding claim 23, Walser et al. disclose wherein a product subbatch includes a plurality of product types (see col. 3).

Regarding claim 24, Walser et al disclose wherein the product subbatches include one or more of image prints, greeting cards, postcards, calendars, photo snapbooks, and photo albums (see fig. 3, col. 6).

Regarding claims 26-50, these method claims are rejected for the same reasons applied above rejected system claims 1-25.

CLAIM 1 REJECTION

In response, claim 1 has been amended to recite the following:

An automated manufacturing system, comprising

- a) a computer processing system configured to define product packages and one or more product subbatches within each product package in response to input product information, to receive status information from one or more consolidation systems, and to produce consolidation assignment in response to the status information; and
 - b) a plurality of consolidation systems each comprising:
 - a batch storage system configured to store a batch storage system configured to store product subbatches for different product packages in accordance to the consolidation assignment;
 - a consolidation controller configured to track the one or more product subbatches for a product package in the batch storage system, to produce the status information about the batch storage system, and to trigger the consolidation of the one or more product subbatches into the product package when all the product subbatches for the product package have been received by the consolidation system; and
 - a packaging system configured to consolidate the one or more product subbatches into the product package.

Support to the amended claim 1 can be found in Figures 1-3 and the related discussions on pages 4-8. Specifically, the elements of the batch storage system, the consolidation controller, and the packaging system in the consolidation system as well as the functions of these systems are depicted in Figure 3 and discussed on page 5, line 27 to page 8, line 8.

Walser does not disclose a batch storage system configured to store product subbatches for different product packages in accordance to the consolidation assignment in the amended claim 1. A mixing tank in Walser can only receive at each time liquids to be

mixed in one liquid mixture. The liquids sent to a mixing tank at each time are only for one liquid mixture. There cannot be two liquid mixtures to be produced in a mixing tank at one time.

Walser does not teach a consolidation system that includes a separate batch storage system, a separate consolidation controller, and a separate packaging system as recited in the amended claim 1. Walser' mixing tank mixes liquids as they are poured in. Walser does disclose "trigger the consolidation of the one or more product subbatches into the product package when all the product subbatches for the product package have been received by the consolidation system".

Walser does not teach a consolidation controller in a consolidation system and "a consolidation controller configured to track the one or more product subbatches for a product package in the batch storage system, to produce the status information about the batch storage system, and to trigger the consolidation of the one or more product subbatches into the product package when all the product subbatches for the product package have been received by the consolidation system" in the amended claim 1.

Since at least one element in the amended claim 1 is not disclosed by Walser, the amended claim 1 cannot be anticipated by Walser under 35 U.S.C. 102(e).

Withdrawal of Section 102 rejections to claims 1 and associated dependent claims 2-10 is respectfully requested.

CLAIM 11 REJECTION

Claim 11 has been amended to recite the following:

An automated manufacturing system, comprising

a) a computer processing system configured to define product packages and one or more product subbatches within each product package in response to input product information, to receive status information from one or more consolidation systems, and to produce consolidation assignment in response to the status information;

b) one or more production systems configured to produce the one or more product subbatches for the product packages defined by the computer processing system; and

c) a plurality of consolidation systems each comprising:

a batch storage system configured to store a batch storage system configured to store product subbatches for different product packages in accordance to the consolidation assignment;

a consolidation controller configured to track the one or more product subbatches for a product package in the batch storage system, to produce the status information about the batch storage system, and to trigger the consolidation of the one or more product subbatches into the product package when all the product subbatches for the product package have been received by the consolidation system; and

a packaging system configured to consolidate the one or more product subbatches into the product package.

Support to the amended claim 11 can be found in Figures 1-3 and the related discussions on pages 4-8. Specifically, the elements of the batch storage system, the consolidation controller, and the packaging system in the consolidation system as well as the functions of these systems are depicted in Figure 3 and discussed on page 5, line 27 to page 8, line 8.

Walser does not disclose a batch storage system configured to store product subbatches for different product packages in accordance to the consolidation assignment in the amended claim 11. A mixing tank in Walser can only receive at each time liquids to be mixed in one liquid mixture. The liquids sent to a mixing tank at each time are only for one liquid mixture. There cannot be two liquid mixtures to be produced in a mixing tank at one time.

Walser does not teach a consolidation system that include a separate batch storage system, a separate consolidation controller, and a separate packaging system as recited in the amended claim 11. Walser' mixing tank mixes liquids as they are poured in. Walser does disclose "trigger the consolidation of the one or more product subbatches into the product package when all the product subbatches for the product package have been received by the consolidation system".

Walser does not teach a consolidation controller in a consolidation system and "a consolidation controller configured to track the one or more product subbatches for a product package in the batch storage system, to produce the status information about the batch storage system, and to trigger the consolidation of the one or more product subbatches into

the product package when all the product subbatches for the product package have been received by the consolidation system” in the amended claim 11.

Since at least one element in the amended claim 11 is not disclosed by Walser, the amended claim 11 cannot be anticipated by Walser under 35 U.S.C. 102(e).

Withdrawal of Section 102 rejections to claims 11 and associated dependent claims 12-25 is respectfully requested.

CLAIM 26 REJECTION

Claim 26 has been amended to recite the following:

A method of automated manufacturing, comprising:
defining product packages and one or more product subbatches within each product package in response to input product information;
receiving status information from one or more consolidation systems;
producing consolidation assignment in response to the status information;
storing product subbatches for different product packages in accordance to the consolidation assignment in a batch storage system in one of a plurality of consolidation systems;
tracking the one or more product subbatches for a product package in the batch storage system by a consolidation controller in the consolidation system;
producing the status information about the batch storage system by the consolidation controller in the consolidation system;
triggering the consolidation of the one or more product subbatches into the product package when all the product subbatches for the product package have been received by the consolidation system; and
consolidating the one or more product subbatches into the product package.

Support to the amended claim 26 can be found in Figures 1-3 and the related discussions on pages 4-8. Specifically, the elements of the batch storage system, the consolidation controller, and the packaging system in the consolidation system as well as the functions of these systems are depicted in Figure 3 and discussed on page 5, line 27 to page 8, line 8.

Walser does not teach “storing product subbatches for different product packages in accordance to the consolidation assignment in a batch storage system in one of a plurality of consolidation systems” in the amended claim 26. A mixing tank in Walser can only receive at

each time liquids to be mixed in one liquid mixture. The liquids sent to a mixing tank at each time are only for one liquid mixture. There cannot be two liquid mixtures to be produced in a mixing tank at one time.

Walser also does not teach “tracking the one or more product subbatches for a product package in the batch storage system by a consolidation controller in the consolidation system” and “producing the status information about the batch storage system by the consolidation controller in the consolidation system”.

Walser’ mixing tank mixes liquids as they are poured in., Walser does not disclose “triggering the consolidation of the one or more product subbatches into the product package when all the product subbatches for the product package have been received by the consolidation system” in the amended claim 26.

Walser’s mixing tank does not perform the steps of “tracking the one or more product subbatches for a product package in the batch storage system by a consolidation controller in the consolidation system”, “producing the status information about the batch storage system by the consolidation controller in the consolidation system”, “triggering the consolidation of the one or more product subbatches into the product package when all the product subbatches for the product package have been received by the consolidation system”; and “consolidating the one or more product subbatches into the product package” as recited in the amended claim 26.

Since at least one element in the amended claim 26 is not disclosed by Walser, the amended claim 26 cannot be anticipated by Walser under 35 U.S.C. 102(e).

Withdrawal of Section 102 rejections to claims 26 and associated dependent claims 27-33 is respectfully requested.

CLAIM 34 REJECTION

Claim 34 has been amended to recite the following:

A method of automated manufacturing, comprising:
providing a plurality of product subbatches for a product package;
storing product subbatches for different product packages in one of a plurality of consolidation systems;

specifying a first load level for the plurality of consolidation systems;
if load level of a consolidation system exceeds the first load level, stopping
sending consolidation system product subbatches that do not have companion product
subbatches already stored in the consolidation system; and
sending the consolidation systems product subbatches that have companion
product subbatches already stored in the consolidation system.

Support to the amended claim 34 can be found in Figures 1-3 and the related discussions on pages 4-8. Specifically, the elements of the batch storage system, the consolidation controller, and the packaging system in the consolidation system as well as the functions of these systems are depicted in Figure 3 and discussed on page 5, line 27 to page 8, line 8.

Walser does not teach “storing product subbatches for different product packages in accordance to the consolidation assignment in a batch storage system in one of a plurality of consolidation systems” in the amended claim 34. A mixing tank in Walser can only receive at each time liquids to be mixed in one liquid mixture.

In Walser, the liquids sent to a mixing tank at each time are only for one liquid mixture. There cannot be two liquid mixtures to be produced in a mixing tank at one time. Walser thus does not teach “specifying a first load level for the plurality of consolidation systems”, “if load level of a consolidation system exceeds the first load level, stopping sending consolidation system product subbatches that do not have companion product subbatches already stored in the consolidation system”, and “sending the consolidation systems product subbatches that have companion product subbatches already stored in the consolidation system” in the amended claim 34.

Since at least one element in the amended claim 34 is not disclosed by Walser, the amended claim 34 cannot be anticipated by Walser under 35 U.S.C. 102(e).

Withdrawal of Section 102 rejections to claims 34 and associated dependent claims 35-42 is respectfully requested.

CLAIM 43 REJECTION

Claim 43 has been amended to recite the following:

A method of automated manufacturing, comprising
storing product subbatches for different product packages in one of a plurality
of consolidation systems;
specifying a consolidation priority to a new product subbatch in accordance
with whether one or more companion subbatches in a same product package as the
new product subbatch are already stored in a consolidation system;
sending the new product subbatch to the consolidation system in accordance
with the consolidation priority; and
consolidating the new product subbatch with the one or more companion
product subbatches already stored in the consolidation system to produce the product
package.

Support to the amended claim 43 can be found in Figures 1-3 and the related discussions on pages 4-8. Specifically, the elements of the batch storage system, the consolidation controller, and the packaging system in the consolidation system as well as the functions of these systems are depicted in Figure 3 and discussed on page 5, line 27 to page 8, line 8.

Walser does not teach “storing product subbatches for different product packages in accordance to the consolidation assignment in a batch storage system in one of a plurality of consolidation systems” in the amended claim 43. A mixing tank in Walser can only receive at each time liquids to be mixed in one liquid mixture.

In Walser, the liquids sent to a mixing tank at each time are only for one liquid mixture. There cannot be two liquid mixtures to be produced in a mixing tank at one time. Walser thus does not teach “specifying a consolidation priority to a new product subbatch in accordance with whether one or more companion subbatches in a same product package as the new product subbatch are already stored in a consolidation system”, and “sending the new product subbatch to the consolidation system in accordance with the consolidation priority” in the amended claim 43.

Since at least one element in the amended claim 43 is not disclosed by Walser, the amended claim 43 cannot be anticipated by Walser under 35 U.S.C. 102(e).

Withdrawal of Section 102 rejections to claims 43 and associated dependent claims 45-50 is respectfully requested.

Applicants believe that all issues raised in the office action have been fully addressed and the amended claims are in condition for allowance.

If for any reasons the Examiner believes a telephone conference would in any way expedite resolution of the issues raised in this appeal, the Examiner is invited to telephone the undersigned at 650-610-3522.

Respectfully submitted,



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